

# COST PROPOSAL ANALYSIS FOR ACO/CA NEGOTIATED PROPOSALS

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### **OBJECTIVE**

## DESCRIBE THE STEPS IN ANALYZING

COST PROPOSALS (i.e. UCAs,

Over & Above,

Spares, Repairs, Claims, etc.)

DETERMINE THE PRICING APPROACH...

ESTAF REASONABLE

### AGENDA/OVERVIEW

- 1. DETERMINE THE PRICING REVIEW APPROACH (Price Analysis or Cost Analysis)
- 2. DEFINE THE PRICING APPROACH
- 3. TECHNIQUES FOR PRICING SPARE PARTS OR SUPPORT EQUIPMENT
- 4. DEFINE & EVALUATE COST ELEMENTS
- 5. REQUESTING AUDIT AND/OR TECHNICAL SUPPORT
- 6. APPLYING QUESTIONED COST/HOURS TO APPROPRIATE BASES (EXERCISES)



## DETERMINE THE REVIEW APPROACH

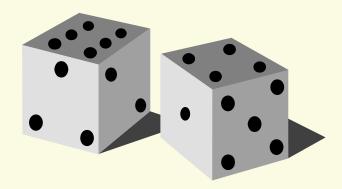


### **PRICE ANALYSIS**

OR



**COST ANALYSIS** 



### WHAT IS PRICE ANALYSIS ?

FAR 15.404-1(b)

DEFINES PRICE ANALYSIS AS
THE PROCESS OF
EXAMINING AND
EVALUATING

A PROPOSED PRICE
WITHOUT EVALUATING ITS
SEPARATE COST ELEMENTS
AND
PROPOSED PROFIT.

### "PRICE ANALYSIS"

FAR 15.404-1(a)(2): PRICE ANALYSIS
SHALL BE
WHEN COST OR PRICING
DATA ARE NOT REQUIRED

NOTE! FAR 15.403-1(b)

EXCEPTIONS TO COST & PRICING
DATA REQUIREMENTS.
FAR 15.404-1(b)(2)(i-vi)...

EXAMPLES OF PRICE
ANALYSIS TECHNIQUES

### *NOW.....*

## IF A FAIR AND REASONABLE PRICE COULD NOT BE ESTABLISHED

**THROUGH** 



"PRICE ANALYSIS"

THEN....

'COST ANALYSIS'

COS

### WHAT IS COST ANALYSE

FAR 15.404-1(c)

COST ANALYSIS IS THE REVIEW
AND EVALUATION
OF THE SEPARATE
COST ELEMENTS AND

**PROFIT** 

IN AN OFFEROR'S OR CONTRACTOR'S PROPOSAL (INCLUDING COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA)

*AND.....* 

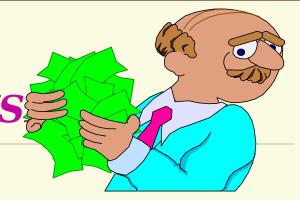
### WHAT IS COST ANALYSIS?

FAR 15.404-1: (Continue)

....THE APPLICATION OF JUDGMENT
TO DETERMINE
HOW WELL THE PROPOSED COSTS
REPRESENT
WHAT THE COST
OF THE CONTRACT SHOULD BE,
ASSUMING REASONABLE
ECONOMY AND EFFICIENCY.



FAR 15.404-1(3).....



COST ANALYSIS SHALL BE USED TO EVALUATE THE REASONABLENESS OF INDIVIDUAL COST ELEMENTS WHEN COST OR PRICING DATA ARE REQUIRED....

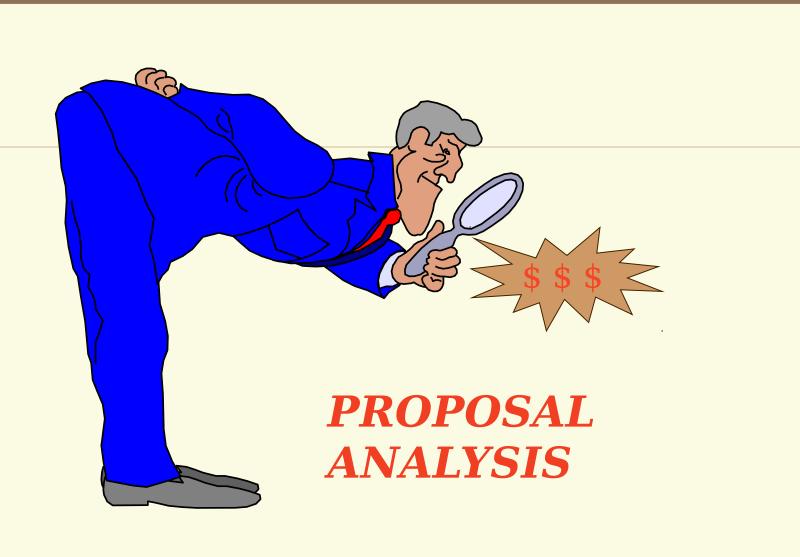
(REQUIREMENT IS BASED ON FAR 15.403-4....

..The threshold for obtaining cost or pricing data is \$500,000)

## PRICE REMAINS FOR FAVORED OVER COST ANALYSIS FOR TWO REASONS;

- FOCUSES ON THE PRICE AND NOT ON WHAT IT COST TO MAKE THE PRODUCT.





## PROPOSAL ANALYSIS FOR SPARE PARTS

### DFARS 215.404-1(a) PERFORM AN

ANALYSIS OF.....

(i) THOSE LINE ITEMS WHERE THE
PROPOSED PRICE
EXCEEDS 25% OR MORE THE LOWEST
PRICE THE
GOV'T HAS PAID WITHIN MOST RECENT 12

MONTH PERIOD BASED ON REASONABLY AVAILABLE INFORMATION;

### SPARE PARTS OR SUPPORT EQUIPMENT

(Continue)

(iii) SIGNIFICANT HIGH-DOLLAR VALUE ITEMS.

IF THERE ARE NO OBVIOUS HIGH
DOLLAR
VALUE ITEMS, INCLUDE AN ANALYSIS
OF
A RANDOM SAMPLE OF ITEMS; AND

(iv) A RANDOM SAMPLE OF THE REMAINING
LOW-DOLLAR VALUE ITEMS. SAMPLE SIZE

MAY BE DETERMINED BY SUBJECTIVE

### EVALUATING COST ELEMENTS

## ELEMENTS OF A COST PROPOSAL

- DIRECT COST
- INDIRECT COST
- PROFIT/FEE

### FIRST...

### **DIRECT COSTS**

FAR 31.202

DIRECT COST IS ANY COST THAT CAN BE

**IDENTIFIED SPECIFICALLY** 

WITH A PARTICULAR FINAL COST OBJECTIVE.

## TYPES OF DIRECT COST

### **DIRECT MATERIAL**

- PURCHASE PARTS
- RAW MATERIAL
  - SUBCONTRACT

#### **ITEMS**

### **DIRECT LABOR**

- ENGINEERING
- MANUFACTURING
- SERVICE LABOR

### **OTHER DIRECT COST**

- TRAVEL
- SPECIAL TOOLING,

### **DIRECT MATERIAL**

"SAMPLE"	<b>BILL OF MATERIALS</b>
	(BOM)

19

<b>PART</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>
<b>COST</b>		
400777	4 400	4.00
<b>123XYZ</b>	1,125.50	100
<b>\$112,5</b>	00	
<b>321ZYX</b>	1,200.00	<b>75</b>
90,0	00	
<b>A248XS</b>	<b>175.00</b>	125
21,8	<b>375</b>	
<b>9632MF</b>	<b>150.00</b>	<b>50</b>

7,500

### "SAMPLE"

### DIRECT LABOR

LABOR CLASS COST (Manu	<u>HOURS</u> ufacturing	<u>RATE</u>	
GRINDING	1,450	<b>\$18.50</b>	
\$ 26,825	·	·	
POLISHING	1,270	18.50	
23,495			
WIRING	865	<b>15.00</b>	
<b>12,975</b>			
<b>ASSEMBLY</b>	<b>366</b>	<b>15.50</b>	
5,673			
INSPECTION	<b>131</b>	16.00	
2,096		20	

### "SAMPLE"

## DIRECT LABOR (Engineering)

LABOR CLASS COST	<b>HOURS</b>	RATE
SR. ENGR. \$ 18,143	<b>885</b>	\$ 20.50
<b>SYSTEM ENGR.</b> 37,800	2,100	18.00
DESIGN ENGR. 20,813	1,125	18.50
DRAFT 4,813	275	17.50
CHECK 2,448	<b>153</b>	<b>16.00</b> 21

### OTHER DIRECT COST (ODC)

### COSTS THAT ARE COMMONLY PROPOSED AS ODC INCLUDE ......

- SPECIAL TOOLING
- TEST EQUIPMENT
- TRAVEL
- PACKAGING & SHIPPING
- COMPUTER COST

### **INDIRECT COST**

FAR 31.203

INDIRECT COST IS ANY COST NOT

**DIRECTLY IDENTIFIED WITH** 

A SINGLE FINAL COST

**OBJECTIVE**,

### TYPES OF INDIRECT COST

- MATERIAL OVERHEAD (i.e. Material Handling, etc.)
- LABOR OVERHEAD (i.e. Manufacturing, Engineering, etc)
- GENERAL & ADMINISTRATIVE EXPENSE (G & A)

## DETERMINE ANALYSIS SUPPORT

### **FIRST**

- UNDERSTAND WHAT YOU ARE BUYING
- CHECK THE PROPOSAL FOR ACCURACY
- DO YOU HAVE PRICING HISTORY ON FILE
- REVIEW PRICE HISTORY
- HAS THIS ITEM BEEN PURCHASED IN RECENT PAST
- IS AUDIT OR TECHNICAL NEEDED

### \* REQUESTING TECHNICAL OR AUDIT

SUPPORT
SOME OF THE AREAS THAT MAY
REQUIRE <u>TECHNICAL</u>
SUPPORT.....

- QUANTITIES AND KINDS OF
  MATERIAL NUMBER OF
  LABOR HOURS
  - LABOR SKILL MIX
    - SPECIAL

TOOLING, SPECIAL TEST EQUIPMENT

- SCRAP AND SPOILAGE FACTORS
  - PROCEDURES

### REQUESTING TECHNICAL OR AUDIT SUPPORT

(Continue)
SOME OF THE AREAS THAT MAY
REQUIRE <u>AUDIT</u> SUPPORT......

- MATERIAL COST
- LABOR RATES (Absent FPRA/FPRR)
  - INDIRECT COST RATES ("

")

- COST OF MONEY ("

")

- ESCALATION FACTORS
- OTHER FACTORS

### DETERMINE COST REASONABLENESS

FAR 31.201-3(a)

A COST IS REASONABLE IF,
IN ITS NATURE AND AMOUNT,
IT DOES NOT EXCEED THAT WHICH
WOULD BE INCURRED
BY A PRUDENT PERSON IN THE
CONDUCT
OF COMPETITIVE BUSINESS.

## DO NOT ASSUME

THAT A COST IS REASONABLE

JUST BECAUSE THE

CONTRACTOR HAS ALREAD INCURRED THE COST

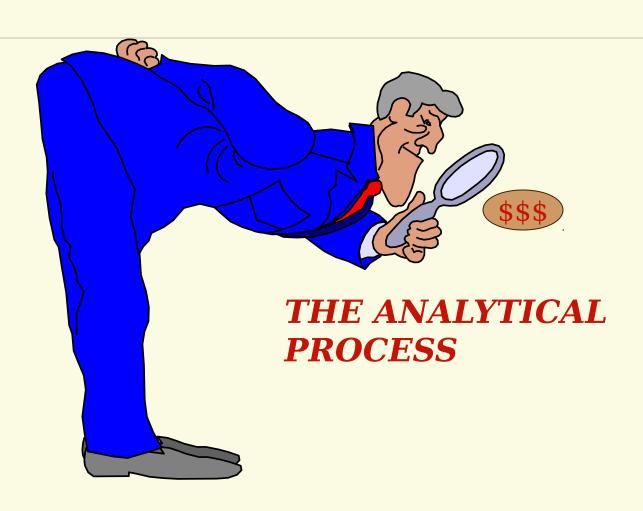
FAR 31.201-3(a)

## CHALLENGE

IF YOU CHALLENGE THE
REASONABLENESS
OF AN INCURRED COST,
THE BURDEN OF PROOF
SHALL BE ON THE
CONTRACTOR

TO ESTABLISH THAT THE COST
IS

FAR 31.201-3 (a) REASONABLE.



### "SAMPLE"

### XYZ INC. COST PROPOSAL

### COST ELEMENTS PROPOSED

**MATERIAL** 237,672 MATERIAL O/H @ 5% 11,884 **MANUFACTURING LABOR** 73,693 MFG. LABOR O/H 154.82% 114,092 **ENGINEERING LABOR** 87,126 ENGR. LABOR O/H @ 109.7%

### **ANALYSIS 1**

### TECHNICAL ANALYSIS QUESTIONED THE FOLLOWING:

#### **PURCHASED PARTS:**

- PART 123XYZ 15 ITEMS
  - PART 9632MF 10

#### **ITEMS**

#### **MANUFACTURING LABOR:**

- GRINDING 50 HRS.
- INSPECTION 20 HRS.

#### **ENGINEERING LABOR:**

- **DESIGN** - **20 HRS.** 

### **ANALYSIS**

#### II

### DCAA AUDIT QUESTIONED THE FOLLOWING:

**DIRECT MATERIAL:** 

PART NO. 321ZYX \$25.00

**UNIT PRICE** 

MATERIAL ESCALATION 1.2%

MATERIAL O/H 1.0%

**MANUFACTURING LABOR:** 

INSPECTION .50

HRLY. RATE

WIRING .50

HRLY, RATE

## ANALYSIS II (Continue)

### **ENGINEERING LABOR:**

SYSTEM ENGR. CHECK ENGR. ESCALATION ENGR. LABOR O/H \$ .50 HRLY. I \$ .50 HRLY.

1.5% 3.2%

**G&A RATE** 1.5%

## EXERCISE 1: DETERMINE THE RECOMMENDED MATERIAL COST

**COST ELEMENT PROPOSED RECOMMEND** 

MATERIAL

**\$** 231,875

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MTRL ESCL. @ 2.5%

5,797

·----

TOTAL MATERIAL \$ 237,672

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## ANSWERS TO EXERCISE 1: DETERMINE THE RECOMMENDED MATERIAL COST PROPOSED BILL OF MATERIALS

PART U.P QTY. COST

123XYZ \$ 1,125 100/85

\$112,500/95,625

321ZYX 1,200/1,175 75

90,000/88,125

A248XS 175 125

21,875

9632MF 150 50/40

7,500/6,000

### **EXERCISE 2:**

## DETERMINE THE RECOMMENDED MNFG. LABOR COST

**COST ELEMENT** PROPOSED RECOMMENDED

MNFG. LABOR \$ 71,064

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MNFG. LABOR ESCL 2,629

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TOTAL MNFG. COST \$ 73,693

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## ANSWERS TO EXERCISE 2 DETERMINE THE RECOMMENDED

### LABOR LANG FACTURING LANDER COST

GRINDING
POLISHING
WIRING
ASSEMBLY
INSPECTION

1,450/1,400 1,270 865 366 131/111

\$18.50 \$ 26 18.50 23 15.00/14.50 13 15.50 5 16.00/15.50 2,

**ESCALATION** 

3.7%/2.2%

### **EXERCISE 3:**

### DETERMINE THE RECOMMNDED

## FNGINEERING LABOR COST ELEMENT PROPOSED RECOMMENDED

**ENGR. LABOR** 

\$84,017

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ENGR. LABOR ESCL

3,109

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**TOTAL ENGR. LBR. \$ 87,126** 

\_\_\_\_\_

## ANSWERS TO EXERCISE 3 DIRECT LABOR

 LABOR CLASS
 HRS.
 RATE
 C

 SR. ENGR.
 885
 \$ 20.50

 SYSTEM ENGR.
 2,100
 18.00/17.50

 DESIGN ENGR.
 1,125/1,105
 18.50

 DRAFT
 275
 17.50

**153** 

**ESCALATION 3.7%/2.2%** 

**CHECK** 

16.00/15.50

### BASE APPLICATION (for Material, Mnfg/Engr. Labor, & G & A)

### **QUESTIONED COST DUE TO RATE:**

PROPOSED BASE	\$
X QUESTIONED RA	TE
<b>OUESTIONED DUE T</b>	O RATE

### **QUESTIONED COST DUE TO BASE:**

QUESTIONED BASE	\$	
X ACCEPTED/RECOM. R	ATE	
QUESTIONED DUE TO BA	SE	

TOTAL COST QUESTIONED

### XYZ INC. COST PROPOSAL

<b>COST ELEMENTS</b>	<b>PROPOSED</b>
<b>RECOMMENDED</b>	

**MATERIAL** \$ 237,672 \$

•••••

MATERIAL O/H @ 5% 11,884

•••••

**MNFG. LABOR** 73,693

••••

MFG. LBR. O/H 154.82% 114,092 .

ENGR. LBR. 87,126

ENGR. LBR. O/H 109.7%

95,577

### **OTHER FACTORS**

**ESCALATION INDICES**: APPLY APPROPRIATE ESCALATION INDICES IN ALL CASES, i.e ..DRI, INC.

COST OF MONEY/PROFIT: APPLY CURRENT TREASURY INTEREST RATE IN THE COST OF MONEY CALCULATION AND USE THE WEIGHTED GUIDELINE MODEL.

PNM: KNOW THE STATUS OF THE KTR'S BUSINESS SYSTEMS, I.E., PURCHASING, ACCOUNTING, COMPENSATION, ESTIMATING, ETC.

#### **SUMMARY CHECK LIST**

< PERFORM PRICE ANALYSIS OR COST

ANALYSIS (Remember the preferred method)

- < REVIEW PROPOSAL FOR ADEQUACY
- < REQUEST AUDIT OR TECH ASSISTANT ONLY WHEN NECESSARY (Check file for history)
  - < COMPUTER SPREADSHEET (Apply

### REFERENCES

#### FAR PART

15.402 PRICING POLICY

15.403 OBTAINING COST OR PRICING

**DATA** 

15.404 PROPOSAL ANALYSIS

15.405 PRICE NEGOTIATION

**15.406 DOCUMENTATION** 

**31.201-3 DETERMINING** 

**REASONABLENESS** 

31.202 DIRECT COST

31.203 INDIRECT COST